

Figure 1: Computer System Architecture

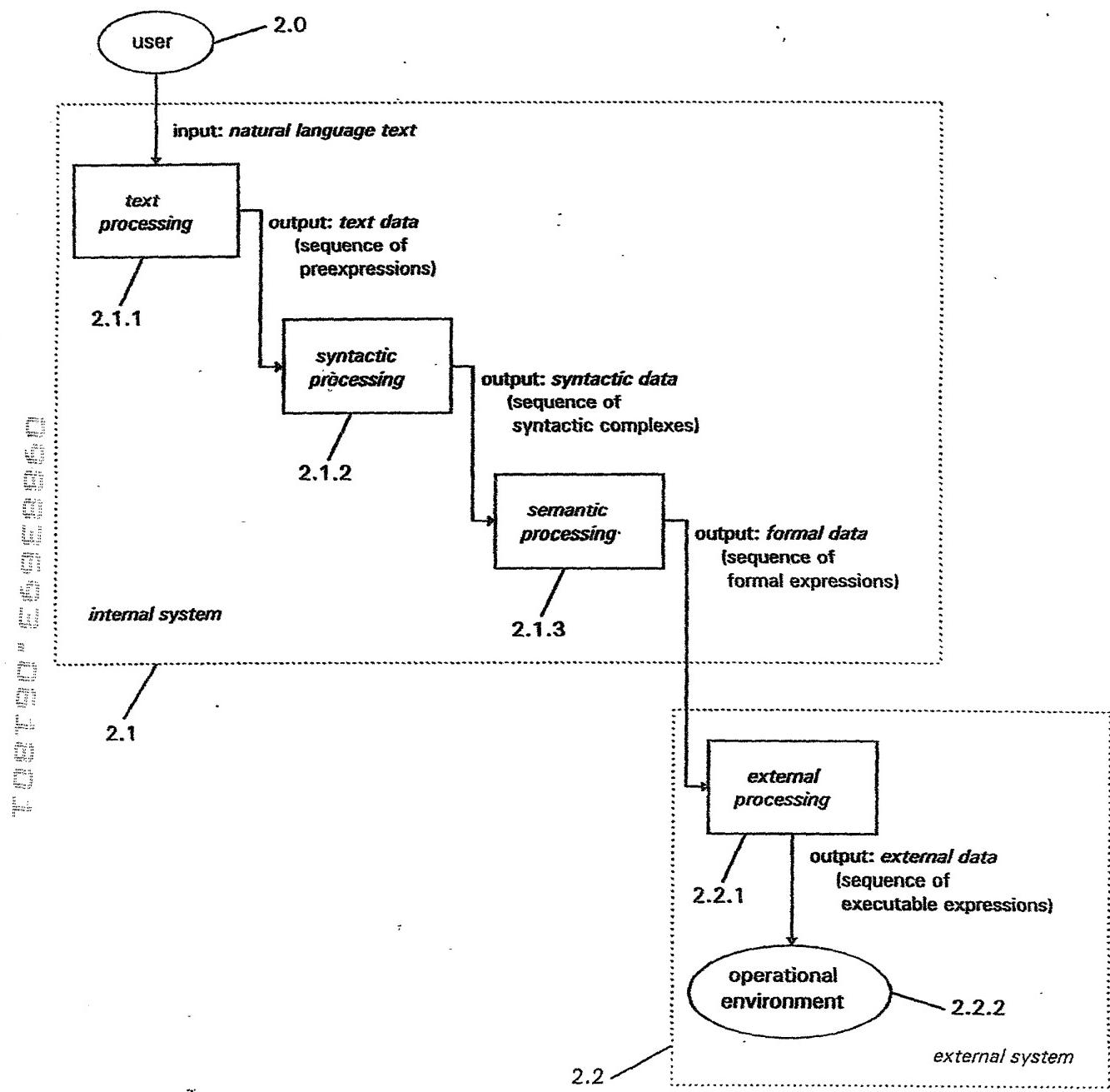


Figure 2: General System Process and Data Flow

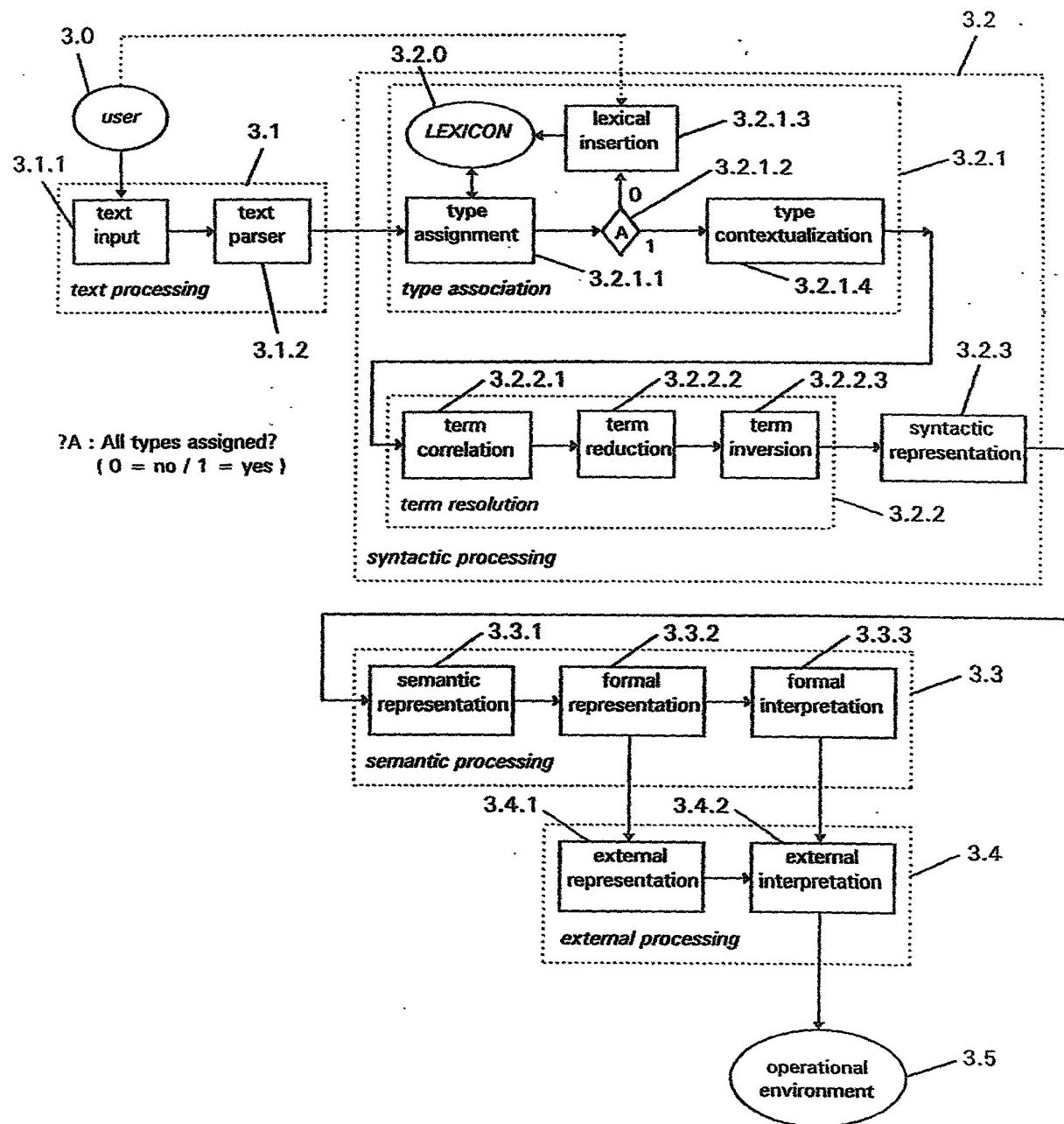


Figure 3: Detailed System Process and Data Flow

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0) (send,act) = (send,lextyp(0,send));
1) (Bob,pnm) = (Bob,lextyp(0,Bob));
2) (an,adj) = (an,lextyp(0,an));
3) (email,xao) = (email,lextyp(0,email));
4) (asking,ing) = (asking,lextyp(0,asking));
5) (him,ppm) = (him,lextyp(0,him));
6) (if,xdc) = (if,lextyp(0,if));
7) (he,ppm) = (he,lextyp(0,he));
8) (is,sob) = (is,lextyp(0,is));
9) (going,ing) = (going,lextyp(0,going));
10) (to,xpi) = (to,lextyp(0,to));
11) (go,act) = (go,lextyp(0,go));
12) (to,xpi) = (to,lextyp(0,to));
13) (his,psm) = (his,lextyp(0,his));
14) (appointment,xom) = (appointment,lextyp(0,appointment));
15) (by,prp) = (by,lextyp(0,by));
16) (himself,prm) = (himself,lextyp(0,himself));
17) (.,trm) = (.,lextyp(0,.));

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act = action
 pnm = proper name/male
 adj = adjective
 xao = ambiguous action/object
 ing = ambiguous participle/gerund
 ppm = personal pronoun/male
 xdc = ambiguous delimiter/conditional
 ppm = personal pronoun/male
 sob = state-of-being verb
 ing = ambiguous participle/gerund
 xpi = ambiguous preposition/in infinitive
 act = action
 xpi = ambiguous preposition/in infinitive
 psm = personal possessive/male
 xom = ambiguous object/modifier
 prp = preposition
 prm = personal reflexive/male
 trm = termination

Figure 4a: Virtual Type Assignment

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0) (send,act) = (send,lextyp(0,send));
1) (Bob,pnm) = (Bob,lextyp(0,Bob));
2) (an,adj) = (an,lextyp(0,an));
3) (email,obj) = (email,lextyp(1,email));
4) (asking,ptc) = (asking,lextyp(1,asking));
5) (him,ppm) = (him,lextyp(0,him));
6) (if,dlp) = (if,lextyp(0,if));
7) (he,ppm) = (he,lextyp(0,he));
8) (is,sob) = (is,lextyp(0,is));
9) (going,ptc) = (going,lextyp(1,going));
10) (to,inf) = (to,lextyp(2,to));
11) (go,act) = (go,lextyp(0,go));
12) (to,prp) = (to,lextyp(1,to));
13) (his,psm) = (his,lextyp(0,his));
14) (appointment,obj) = (appointment,lextyp(1,appointment));
15) (by,prp) = (by,lextyp(0,by));
16) (himself,prm) = (himself,lextyp(0,himself));
17) (.,trm) = (.,lextyp(0,.));

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act = action
 pnm = proper name/male
 adj = adjective
 obj = object
 ptc = participle
 ppm = personal pronoun/male
 dlp = phrase delimiter
 ppm = personal pronoun/male
 sob = state-of-being verb
 ptc = participle
 inf = infinitive
 act = action
 prp = preposition
 psm = personal possessive/male
 obj = object
 prp = preposition
 prm = personal reflexive/male
 trm = termination

Figure 4b: Actual Type Assignment

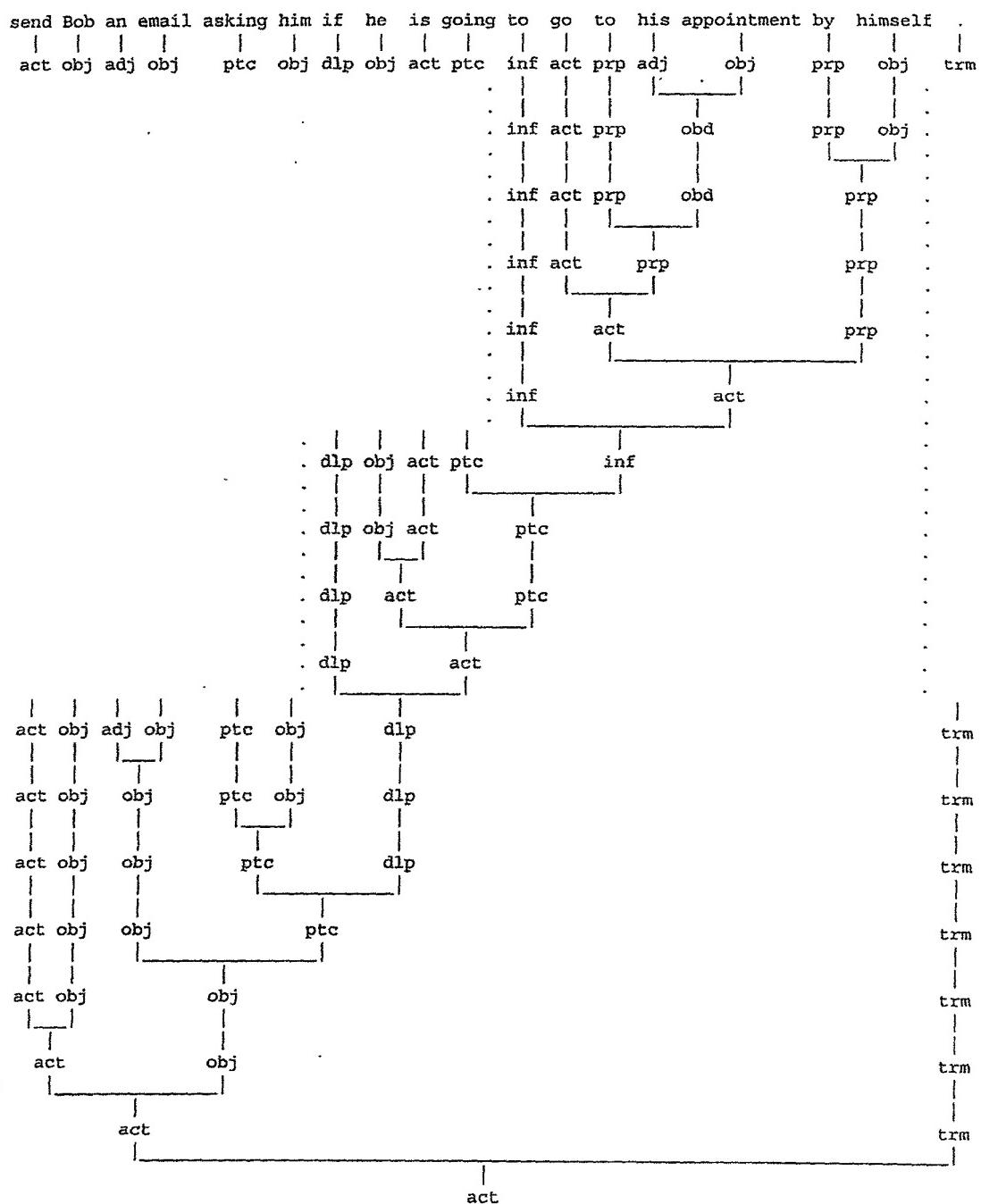
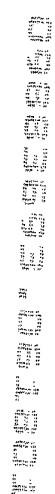


Figure 5: Term Reduction Sequence

0) (send,act) → (Bob,obi)
 1) (send,act) → (email,obd) → (an,adj)
 2) (send,act) → (email,obd) → (asking,ptc) → (him,obd)
 3) (send,act) → (email,obd) → (asking,ptc) → (if,dlp) → (is,act) → (he,obs)
 4) (send,act) → (email,obd) → (asking,ptc) → (if,dlp) → (is,act) → (going,ptc) →
 (to,inf) → (go,act) → (to,prp) → (appointment,obp) → (his,adj)
 5) (send,act) → (email,obd) → (asking,ptc) → (if,dlp) → (is,act) → (going,ptc) →
 (to,inf) → (go,act) → (by,prp) → (himself,obp)

Figure 6a: Syntactic Dependency Chains

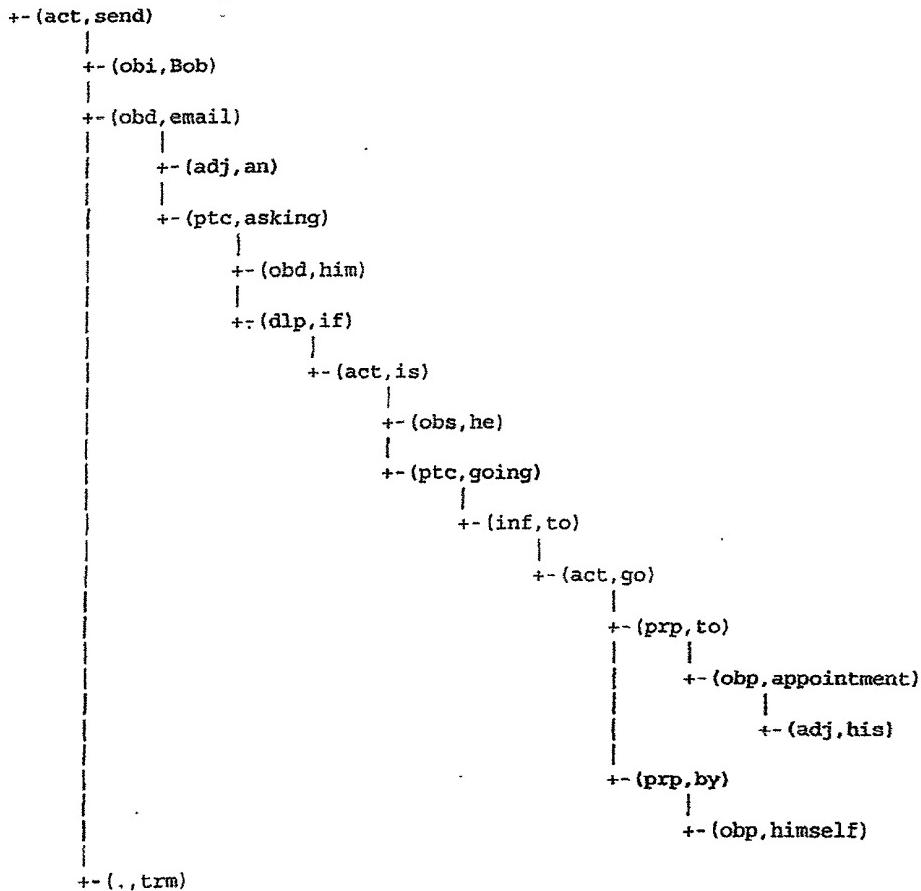


Figure 6b: Syntactic Tree

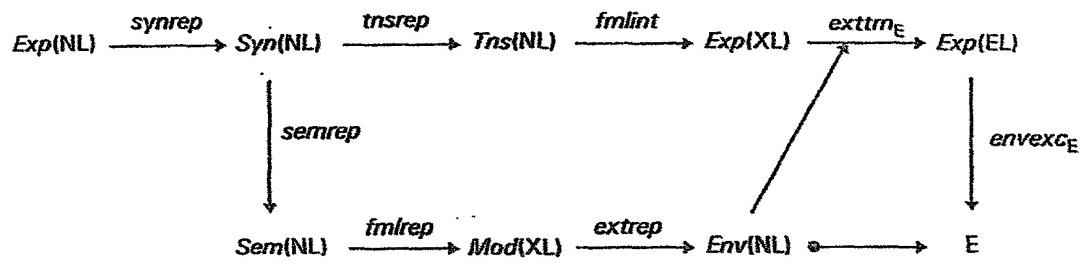


Figure 7a: External Representation / Interpretation Schema

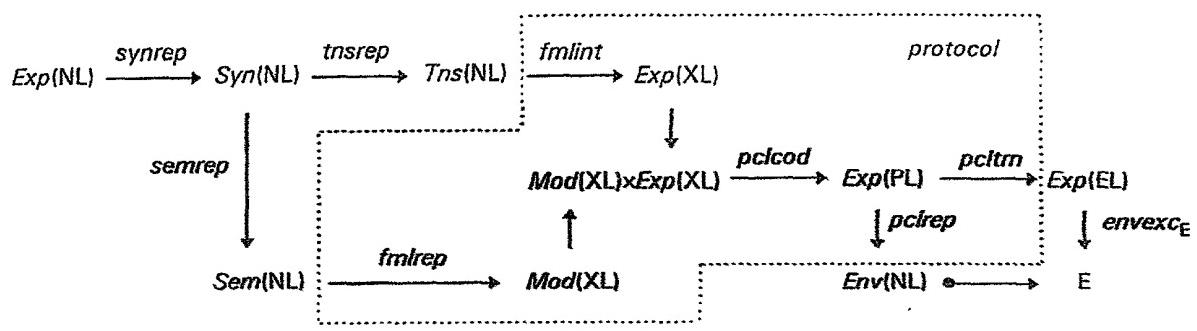


Figure 7b: Protocol Representation / Interpretation Schema